

A REVISION OF THE GENUS *OREOTHALIA* MELANDER  
(DIPTERA: EMPIDIDAE)

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*Abstract.*—The Nearctic clinocerine empidid genus *Oreothalia* Melander is revised. Redescriptions of the genus and two previously described species, *O. pelops* and *O. rupestris*, are given. Three species are described as new, *O. spinitarsis*, *O. sierrensis*, and *O. chillcotti*. Illustrations of wings and genitalia are presented for each species.

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Flies of the genus *Oreothalia* Melander are typical clinocerine empidids, usually found on water films in seepage areas or on exposed rocks. They are predaceous, feeding on small fragile arthropods. Mating takes place near the water. Nothing is known of the immature stages.

*Oreothalia* adults are not easily collected because of their habit of remaining close to the substrate, even during their short flights. The only effective means of collecting is with an aspirator. A sweep net swung close to the substrate will sometimes produce a few specimens.

A. L. Melander (1902) named the genus for the single western species *Oreothalia pelops* Melander. The only other described species is *Oreothalia rupestris* Vaillant (1960) from the eastern United States.

Recent collecting of clinocerines in the western United States has added greatly to the number of specimens of *Oreothalia* available for study. It has shown that what has been called *O. pelops* is actually two species, both commonly collected. Representatives of two additional species have also been found.

*Oreothalia* Melander

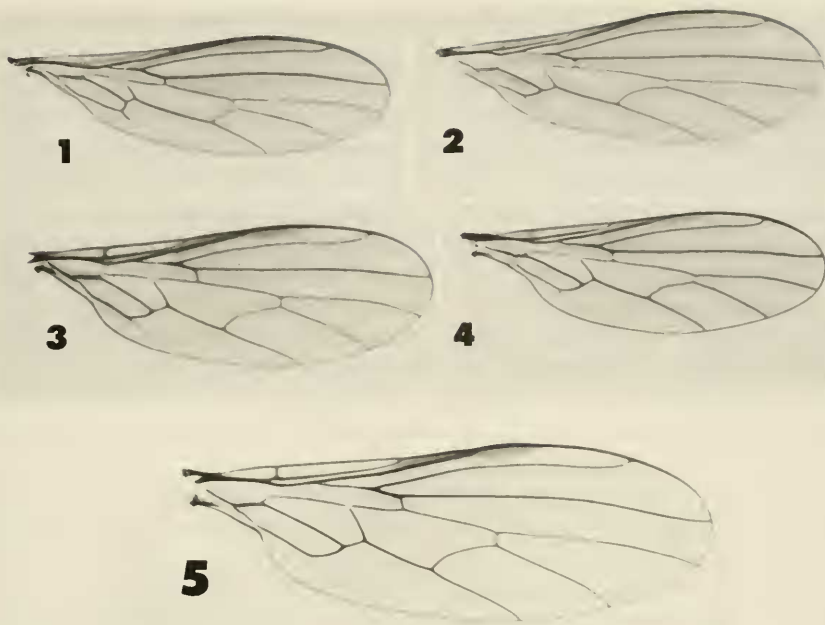
*Oreothalia* Melander, 1902: 232. Type species, *pelops* Melander (monotypic)

Description.—Delicate opaque black flies generally resembling *Clinocera* Meigen species, but with  $R_{4+5}$  not forked. *Head*: Oval, slightly narrowed ventrally; eye large, covering entire side of face and reaching oral margin, therefore separating gena from face, facets uniform in size, pubescent; an-

tennal emargination broad and distinct. Sides of the front divergent to occiput, broader in female; face wide with sides slightly sinuate, wider and with straight sides in female. Ocellar triangle elevated, occupying a slightly anterior position on front; 1 pair of strong ocellar setae, several small postocellar hairs; 2 irregular rows of postocular bristles. First antennal joint narrow, apparently inset on dry specimens, 2nd longer than 1st with a few black hairs, 3rd segment oval, pubescent; arista 1-segmented, terminal, thick, tomentose. Labrum short, broadly triangular, tomentose, labellae large, chitinized, curving towards each other, meeting in front of labrum. Palpi small, oval, appressed, tomentose with a few hairs. *Thorax*: Longer than broad, not much arched above. Pronotum with a few weak setae; sternum and episterna with sparse pale hairs; mesonotum with 5 strong dorsocentrals, minute acrostichals present anterior to 1st dorsocentral; 1 humeral, 1 posthumeral, 1-2 notopleurals, sometimes 1 intra-alar and 1 post-alar, and 1 pair of marginal scutellars; metapleurae with dense yellow hairs; sternopleuron with some long white hairs on posterior edge. *Legs*: Slender, front coxa lengthened, at least twice as long as other 2; front femur slightly swollen with strong, anteriorly inclined thornlike setae on ventral surface; hind tibia setose, no tibial spurs; claws, empodia and puvilli long. *Wing*: Anal angle slightly projecting, costa encompassing wing; 2 (sometimes 1) long costal bristles present; subcosta strong, complete;  $R_{4+5}$  unbranched; discal cell emitting 3 veins; 1st basal cell longer than 2nd, 2nd subequal to anal cell; anal crossvein variable, anal vein present or evanescent; calypter small with a thick, nearly straight edge and a strong, pale fringe; stigma present, usually weak. *Abdomen*: Cylindrical, tomentose and with loose pale hairs; segments with 1 or 2 rows of dorsal pittings and 2 lateral pittings (often obscured). Pygidium reflexed, aedeagus conical; female with terminal segment compressed laterally, 2 small cerci present.

#### KEY TO SPECIES OF *OREOTHALIA* MELANDER

1. Wing with discal cell blunt apically (Fig. 1), 1 basal costal bristle; 2 notopleural and no supra-alar or intra-alar bristles; terminalia as figured (Fig. 9) ..... *rupestris* Vaillant
- Wing with discal cell attenuate apically (Figs. 2-4), 2 basal costal bristles; 1 notopleural, 1 supra-alar and 1 intra-alar bristle ..... 2
2. Wing hyaline or subhyaline, stigma distinct; pleurae uniformly grey tomentose; male terminalia with dorsal valve round to oval and densely setose mesally (Figs. 6, 12) ..... 3
- Wing infuscated, often more so around wing veins, stigma pale, indistinct; pleurae with some greenish or brownish tomentum as on notum; male terminalia with dorsal valve either long and narrow or broad and truncate dorsally, nearly bare mesally (Figs. 7, 8) ..... 4
3. Large species (3-4 mm); stigma dark, distinct, wing veins blackish (Fig. 5); pale anteroventral and posteroventral cilia on femur III



Figs. 1-5. Wings. 1, *Oreothalia rupestris*. 2, *O. spinitarsis*. 3, *O. chillcotti*, 4, *O. pelops*, 5, *O. sierrensis*.

- longer than femur width; femora with a distinct bluish cast; halter black ..... *sierrensis*, new species
- Smaller species (2.5-3.0 mm); stigma pale but distinct, wing veins brown (Fig. 3); pale anteroventral and posteroventral cilia on femur III shorter than femur width; femora with at most a pale greenish cast; halter brown ..... *chillcotti*, new species
- 4. Basitarsis III with at least 4 strong, distinct ventral bristles (Fig. 11); female face grey, brown near oral margin; terminalia as figured (Fig. 7) ..... *spinitarsis*, new species
- Basitarsis III with only weak or irregular ventral bristles (Fig. 10); female face uniform brown; terminalia usually as figured (Fig. 8), rarely as in Fig. 7 ..... *pelops* Melander

*Oreothalia rupestris* Vaillant

Figs. 1, 9

*Oreothalia rupestris* Vaillant, 1960: 118.

Description.—Body length 2 to 3 mm; general color brown, closely covered with brown and greenish tomentum. *Head*: Occiput and front covered with thin green tomentum; face of male grey, of female greenish. Antenna

black, arista short,  $3\times$  the length of 3rd antennal segment. *Thorax*: Notum dull, covered with brown tomentum with green highlights, median stripe, if present, indistinct; 5 long dorsocentrals, 1 humeral, 1 posthumeral, 2 notopleurals with a few additional pale hairs, 2 divergent marginal scutellars; pleuron greyish with uniform green and purple highlights. *Legs*: Light brown with pale tomentum. Anterior femur with 4 to 5 ventral spinelike setae which are regular in size and arrangement, on the apical  $\frac{1}{2}$  (usually apical  $\frac{1}{3}$ ) and shorter than width of tibia. Tibia I with apical oblique comb of divergent, widely-spaced pale setae on anterior face; row of uniform short setae on ventral surface; tibia III with a variable number of weak dorsal setae and some ventral hairs. *Wing*: Fig. 1; brown with discal cell blunt, anal cell truncate, anal vein short, distinct; stigma obsolete; 1 basal costal bristle. *Abdomen*: Brown, subshining with sparse green and purple tomentum. Terminalia (Fig. 9) large, dorsal process very long, narrow, black, polished.

Type Material.—Holotype ♂ (not examined), Laurel Falls, 800 m, 20-VIII-1955, North Carolina, coll. by F. Vaillant. Deposited in Vaillant's private collection.

Diagnosis.—Adults of *O. rupestris* are the most distinctive of the genus. They can be distinguished by the blunt discal cell and truncate anal cell in the wing, the presence of only one costal bristle, the absence of intra-alar and postalar bristles, and the presence of two notopleural bristles. The terminalia are also distinctive.

Specimens Examined.—(DDWC indicates specimens in my personal collection, other abbreviations are listed in the acknowledgments.) Total number of specimens examined, 31. *North Carolina*: Highlands, Whiteside Mt., 4600' [ca. 1400 m], July; Wilson's Gap, 3100' [ca. 940 m], May; Bubbling Spring Creek, nr. Tennessee Bald, 5100' [ca. 1550 m], July; Mt. Pisgah, 4–5000' [ca. 1220–1520 m], July (CNCI, FSCA). *Tennessee*: Van Buren Co., May (USNM). Other specimens (not examined) have been collected at: Great Smoky Mountains National Park: Between Clingman's Dome and Gatlinburg, 900 m, August; Mt. Le Comte, 1950 m, August.

Remarks.—*Oreothalia rupestris* adults are found near the water surface in streams and seepages at elevations above 900 m in the Smoky Mountains. The larvae are presumably aquatic. This is the only species in the genus which occurs east of the Rocky Mountains. Although certainly belonging in the genus, it is remarkably different from the western species.

*Oreothalia pelops* Melander

Figs. 4, 8, 10

*Oreothalia pelops* Melander, 1902: 233. Melander 1927: 223 (in redescription of genus).

Description.—Body length 2.5 to 3.5 mm; general color brown to dark brown, closely covered with greenish tomentum. *Head*: Occiput and front

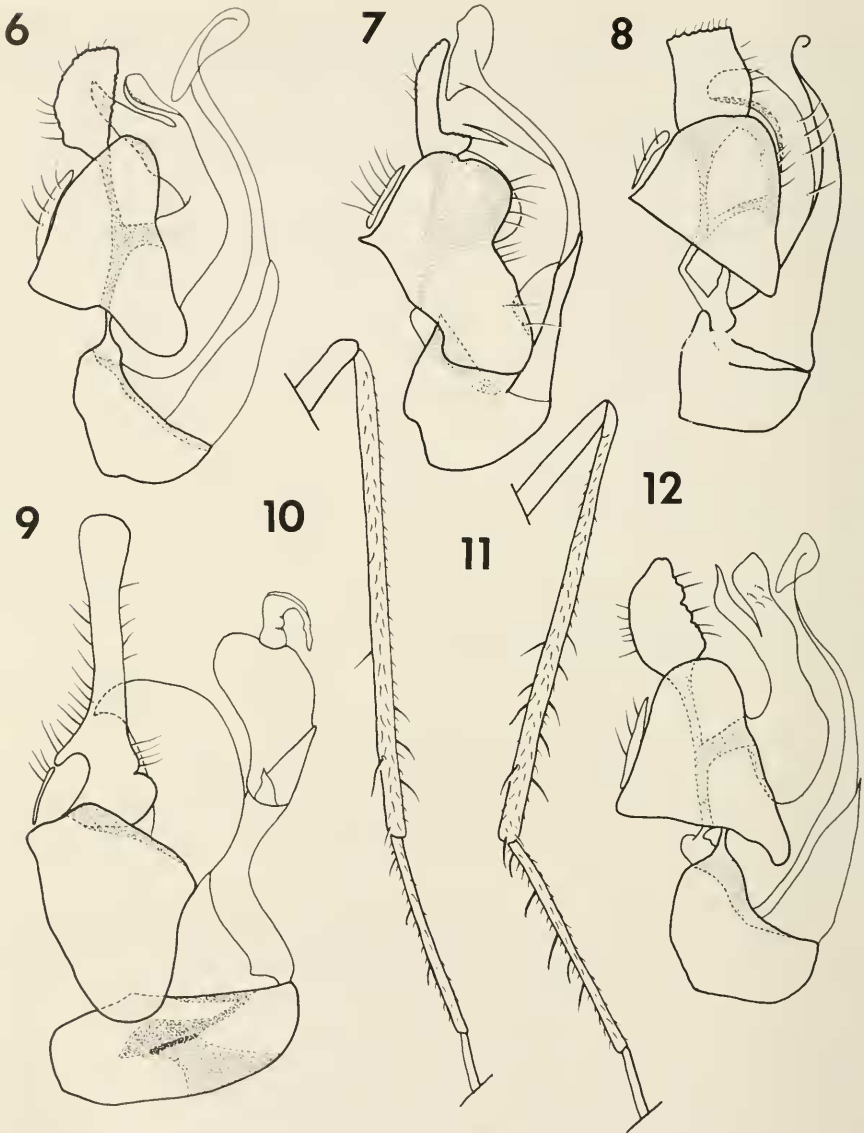
covered with greenish brown tomentum, postoccipt and gena greenish; face of male silvery white, of female dull greenish brown. Antenna dark brown to black, arista usually  $3.5-4.5\times$  the length of 3rd antennal segment. *Thorax*: Notum dull greenish with a brown median stripe; 5 dorsocentrals, 1 humeral, 1 posthumeral, 1 notopleural bristle, and 1 to several small hairs, 1 intra-alar, 1 postalar, 1 pair of convergent or parallel marginal scutellars and several additional marginal hairs; pleuron grey tomentose, greenish along pleural suture and cluster of metapleural hairs. *Legs*: Brown with green reflections. Anterior femur with ventral spinelike setae which are irregular in size and arrangement, but usually on apical  $\frac{3}{4}$  of femur and longer than the width of anterior tibia. Tibia I with an apical oblique comb of closely set short setae on the anterior face; a row of uniform, short, dark, appressed setae on the ventral surface; tibia III with 2 to 4 dorsal setae and 1 to 3 shorter ventral setae on apical  $\frac{1}{3}$ ; basitarsis III with weak, irregular ventral setae (Fig. 10), if setae are long, there are no more than three. *Wing*: Fig. 4; slightly infuscated, often darker around veins, broadest at end of  $R_1$ ; discal cell elongate dorsally; stigma pale, distinct; 2 strong basal costal bristles. *Abdomen*: Brown with thin green, brown and purple tomentum, sparse yellow hairs. Terminalia (Fig. 8) with dorsal process usually broad, truncate dorsally, partially tomentose, slightly concave mesally with a few small hairs. Few individuals with dorsal process as in Fig. 7.

*Type Material*.—LECTOTYPE  $\delta$  (here designated) labeled "Kendrick/Idaho" "JMAldrich/coll" "Cotype/No. 29184/U.S.N.M." 4  $\delta$  and 2  $\text{♀}$  paralectotypes with the same data are all deposited in USNM.

*Diagnosis*.—*Oreothalia pelops* adults can be distinguished from those of the closely related *O. spinitarsis* by the absence of four strong setae on the basitarsus, the shorter arista, the uniform brown face of the female, and the distinctive male terminalia.

*Specimens Examined*.—153. *Alberta*: Banff, August (CNCI). *California*: Tuolumne Co.: Brightman Flat, July. Yosemite National Park: Nevada Falls, 5907' [1800 m], Aug. (CASC, DDWC). *Idaho*: Latah Co.: Kendrick, Aug. (USNM). *Oregon*: Benton Co.: Mary's Peak, June. Wallowa Co.: Enterprise, 3400' [1040 m], June (WSUC, DDWC). *Washington*: Grays Harbor Co.: Montesano, July. King Co.: Vashon, May. Mt. Rainier Nat. Park: Alta Vista; Berkeley Park; creek draining E. end Yakima Park; Ohanapecosh; Paradise Park; Sluiskin; Summerland.; White River; Yakima Park, July, Aug. Pierce Co.: Tacoma, July, Aug. Yakima Co.: Chinook Pass, 5400' [1650 m], Aug. (USNM, DDWC, NEWC).

*Remarks*.—Adults of *O. pelops* can be separated easily from those of the closely related *spinitarsis* on the basis of the characters listed in the diagnosis. The genitalia are, in most cases, distinctive. However, in a few cases certain individual specimens showing all the usual character states of *pelops* will have genitalia in the form typical of *spinitarsis*. This structural dimorphism may be the result of hybridization. Whatever the genetic basis of this



Figs. 6-9. Male genitalia (macerated). 6, *Oreothalia sierrensis*. 7, *O. spinitarsis*. 8, *O. pelops*. 9, *O. rupestris*. Figs. 10-11. Hindtibia and basitarsis in anterior view. 10, *O. pelops*. 11, *O. spinitarsis*. Fig. 12. Male genitalia, *O. chillcotti*.

phenomenon, I feel that the constancy of the other characters warrants placing such specimens with *O. pelops*. These flies are found in moist seepage areas, under waterfalls and on rocks in streams from northern California to Alberta. Although they are sympatric with *O. spinitarsis*, the two species

are only rarely collected together. Life history study and breeding experiments with these two interesting species of flies are necessary to elucidate their true relationship.

*Oreothalia spinitarsis* Wilder, NEW SPECIES

Figs. 2, 7, 11

Description: Body length 2.5 to 3.5 mm; general color brown to dark brown, closely covered with brown and/or green tomentum. *Head*: Occiput and front covered with greenish-brown tomentum, post-occiput and gena greenish; face of male silvery white, of female brown near oral margin, blending into grey or green near antennal base. Antennae brown to black, arista 4–5× length of 3rd segment. *Thorax*: Notum dull greenish with a brown median stripe; 5 dorsocentrals, 1 humeral, 1 posthumeral, 1 notopleural with a variable number of associated dark hairs, 1 intra-alar, 1 post-alar, 2 marginal scutellars, and a few short marginal hairs; pleuron grey tomentose, greenish along a wide area from anterior spiracle to metapleural hairs. *Legs*: Brown, covered with green or brown tomentum. Anterior femur with ventral spinelike setae irregular in size and arrangement, but usually on anterior  $\frac{2}{3}$  on femur and subequal to the width of anterior tibia. Tibia I with an apical oblique comb of closely set short setae on anterior face; a row of uniform short dark setae on ventral surface; tibia III with 3–6 strong dorsal and 2–4 shorter ventral setae on apical  $\frac{1}{2}$ ; basitarsis III with at least 4 distinct ventral setae (Fig. 11). *Wing*: Fig. 2; infuscated, often darker around veins, broadest beyond end of  $R_1$ ; discal cell elongate dorsally; stigma pale; 2 strong basal costal bristles. *Abdomen*: Brown with thin brown or grey tomentum, sparse yellow hairs. Terminalia (Fig. 7) with dorsal process long and narrow, polished, serrate on anterior edge, not haired mesally.

Type-Material: Holotype, ♂, "U.S.A.: WASHINGTON:/Gray's Harbor County/Olympic Natl. Forest/Willaby Cpgd. 21-VII-1978. D. Dee Wilder," "D. Dee Wilder/Collection." "Holotype *Oreothalia spinitarsis* Wilder 1980," "Calif. Acad. Sci. Type No. 13676." Allotype ♀ with the same data. Paratypes: 114 specimens with the same data or with the addition of "Rec. Loop Trail" or the date, "20-VII-1978." Holotype and allotype are deposited in the collection of the California Academy of Sciences.

Diagnosis: *Oreothalia spinitarsis* adults differ from those of *O. pelops* by the more spinous basitarsis III, the longer arista, the bicolored face of the female, the shape of the wing, and the distinctive male terminalia.

Specimens examined.—470 (all paratypes). *British Columbia*: 1 ♂, Cowichan Lake, July. 10 ♀, 15 ♂, Horseshoe Bay, 0–300' [0–90 m], May. 1 ♀, Goldstream Provincial Park, July. 1 ♂, Mt. Thornhill, Terrace, July; 2 ♂, 1 ♀, nr. Terrace. 3500', 4300', 5300' [1070, 1310, 1620 m] July; 1 ♀, 5 mi. S. Terrace, June; 1 ♀, 49 mi. W. Terrace, July; 1 ♂, 50 mi. S.W. Terrace, June. 1 ♀, Squamish, 3200' [ca. 980 m], Aug. (CNCI, CASC).

*Alaska*: 2 ♂, Thane, May (WSUC). ½*California*: Humboldt Co.: 2 ♂, Humboldt Redwoods St. Pk., May; 2 ♂, 3 ♀, Orlick, June. Madera Co.: 1 ♀, Upper Chiquito Campground, 6820' [ca. 2080 m], Aug. Mendocino Co.: 1 ♂, Buck Rock Creek at INO2, June (USNM, DDWC, CASC). *Idaho*: Benewah Co.: 1 ♀, Thorn Creek, nr. St. Maries, June. Bonner Co.: 1 ♂, 1 ♀, Priest Lake; Indian Creek, Lookout Mt., Aug., Sept. (DDWC, USNM). *Oregon*: Benton Co.: 2 ♂, 2 ♀, Mary's Peak, June, July; 5 ♂, 3 ♀, Yew Creek, June. Douglas Co.: 1 ♂, Divide, June. Hood River Co.: 1 ♂, Starvation Creek St. Pk., June. Jackson Co.: 1 ♂, 3 ♀, Dead Indian Soda Spring, May. Klamath Co.: 1 ♀, Crater Lake, Sept. Lane Co.: 1 ♀, McKenzie Bridge Cpgd., June. Linn Co.: 2 ♂, 2 ♀, Monument Peak Guard Sta., 4000' [ca. 1220 m], July, Aug. Marion Co.: 1 ♀, Silver Falls St. Park, June. Multnomah Co.: 1 ♂, Multnomah Falls, June; 1 ♀, Oneonta Gorge, Sept. Umatilla Co.: 1 ♂, Dead Man Pass, July (DDWC, WSUC, USNM, CASC). *Washington*: Clallam Co.: 2 ♂, 3 ♀, Bogachiel, June; 1 ♂, Lake Crescent, Fairholm, July; 1 ♂ Tumbling Rapids Rec. Area, June. Gray's Harbor Co.: 60 ♂, 54 ♀, Willaby Cpgd., July. Jefferson Co.: 1 ♀, 15 km. N.E. Quinalt, June. King Co.: 4 ♂, 3 ♀, Vashon, May. Kittitas Co.: 5 ♂, 1 ♀, Lake Keechelus, Sept. Lewis Co.: 1 ♂, 2 ♀, Adna, July; 1 ♂, 3 ♀, Toledo, June. Mason Co.: 2 ♀, Dewatto, June, Aug.; 2 ♀, Lake Cushman, June, July; 2 ♂, Lilliwaup, July. Mt. Rainier Nat. Park: 2 ♀, above Christine Falls, 3700' [ca. 1130 m], 4500' [ca. 1370 m]; 1 ♂, Cayuse Pass; 12 ♂, 8 ♀, Comet Falls Trail, 4500' [ca. 1370 m]; 8 ♂, 13 ♀, Cowlitz Divide Trail, 640 m; 2 ♂, 3 ♀, creek draining E. end Yakima Park, 1830 m; 2 ♂, 3 ♀, Eagle Peak: 2 ♂, 1 ♀, Fairfax Trail; 12 ♂, 10 ♀, Fish Creek at West Side Rd., 910 m; 1 ♀, Frying Pan Trail; 4 ♂, Longmire; 1 ♂, 4 ♀, Mazama Ridge; 3 ♂, 2 ♀, Ohanapecosh; 2 ♂, 1 ♀, Panther Creek, 720 m; 5 ♂ 6 ♀, Paradise Park; 17 ♂, 16 ♀, Stevens Creek at Stevens Cyn. Rd., 4000–4500' [ca. 1220–1370 m]. July–October. Olympic Nat. Park: 1 ♂, 2 ♀, Lake Creek, 650 m; 2 ♂, 3 ♀, T26N R13W Sec. 28, sweeping coastal forest. July. Pacific Co.: 17 ♂, 30 ♀, Ilwaco, May, July; 1 ♀, South Bend, May. 1 ♂, 1 ♀, Pluvis, June. Pierce Co.: 13 ♂, 6 ♀, La Wis Wis, 390 m, Oct.; 7 ♂, 6 ♀, Tacoma, May, July, Aug. San Juan Co.: 1 ♂, 1 ♀, Mt. Constitution, May. Skagit Co.: 1 ♀, Baker Lake, May. Snohomish Co.: 1 ♂, Everett, June; 2 ♂, 2 ♀, Granite Falls, Aug. Whatcom Co.: 2 ♂, 1 ♀, Bagley Creek, 850 m, Oct.; 1 ♂, Glacier, Sept.; 2 ♂, Thompson Creek, Mt. Baker, 400 m, Oct. (USNM, DDWC, WSUC, CNCI, CASC, FSCA).

Remarks.—Members of this species are distinctly different from those of the closely related *O. pelops*, although *spinatarsis* adults have, in the past, frequently been determined as *pelops*.

These flies are found on rocks in small to large streams from northern California to British Columbia. They have also been collected under waterfalls, in boggy seepage areas, and on tundra.



The specific epithet refers to the conspicuous spines on the hind basitarsis.

*Oreothalia sierrensis* Wilder, NEW SPECIES

Figs. 5, 6

Description.—Body length 3.0 to 4.0 mm, general color brown dorsally, grey laterally, heavily tomentose. *Head*: Occiput and front greenish-brown tomentose; postocciput and gena grey with blue highlights; face of male grey tomentose, of female, brown. Antenna black, arista short,  $3\times$  length of the 3rd segment. *Thorax*: Notum dull brown with red and green reflections; median stripe, if present, indistinct. Five dorsocentrals, 1 humeral, 1 posthumeral, 1 notopleural with several pale hairs, 1 intra-alar, 1 postalar, and 2 long marginal scutellars with several dark marginal hairs; pleuron and coxae uniformly grey tomentose; halter black. *Legs*: Black, femora bluish-green tomentose. Anterior femur with ventral spinelike setae evenly spaced and of approximately equal length on anterior  $\frac{2}{3}$  (usually anterior  $\frac{1}{2}$ ) of femur and longer than the width of the anterior tibia; femur ciliate with posterior and posteroventral rows of white hairs. Tibia I with an apical oblique comb of short setae on the anterior face; a row of small uniform curved dark setae on the ventral surface. Tibia III with 2–5 dorsal and 0–3 shorter ventral setae on apical  $\frac{1}{3}$ ; basitarsis III with weak hairs; femur III ciliate with 1 row each anteroventral and posteroventral long white hairs. *Wing*: Fig. 5; hyaline; veins, stigma and subcostal cell dark, distinct; anal vein weak, evanescent; 2 strong basal costal bristles. *Abdomen*: Grey tomentose with a median greenish-brown stripe, female abdomen often without stripe. Terminalia (Fig. 6) with dorsal process round-oval, polished, mesal surface concave, covered with stiff hairs.

Type-Material.—Holotype ♂, "U.S.A.: CALIFORNIA:/Fresno Co. Sierra N.F./E.&W. Forks Camp 61 Cr./nr. Forebay Lk. 2200 m/T7S R26E Sec. 19.31/July 1979 D.D. Wilder," "D. Dee Wilder/Collection," "Holotype *Oreothalia sierrensis* Wilder 1980," "Calif. Acad. Sci. Type No. 13675." Allotype, ♀ with the same data. Holotype and allotype are deposited in the collection of the California Academy of Sciences.

Diagnosis.—Members of this species can be distinguished from all other *Oreothalia* adults by the following combination of character states: Large, hyaline wings with a dark, distinct stigma; long pale anteroventral and posteroventral hairs on femur III; halteres black; and distinctive male genitalia (Fig. 6).

Specimens Examined.—23, all paratypes. *California*: Fresno Co.: 5 ♂ 4 ♀, same date and locality as type; 1 ♂ 4 ♀, Huntington Lake along Bear Creek, 2100 m, August; 3 ♂, unnamed creek near Kaiser Pass, 2700 m, August; 1 ♂ Badger Flat Campground, 2500 m, August. Los Angeles Co.: 1 ♀, Windy Spring, June. Madera Co.: 2 ♂, Willow Meadow, 7550' [ca.

2500 m], Aug. Mono Co.: 1 ♂, 4 mi. E. Monitor Pass, June. Tuolumne Co.: 1 ♀ Clark's Fork River below Sand Flat, July (DDWC, CASC, WSUC).

Remarks.—This species has been collected from rocks and waterfalls in small, fast-flowing, clear mountain streams. The name, *sierrensis*, refers to the Sierra Nevada Mountains where most specimens have been collected.

*Oreothalia chillcotti* Wilder, NEW SPECIES

Figs. 3, 12

Description.—Body length 2.5 to 3.0 mm, general body color dull brown. *Head*: Occiput and front reddish-brown tomentose, postocciput and gena dull grey; face of male white, of female, brown. Antenna black, arista short, 3× length of the 3rd segment. *Thorax*: Notum uniform dull brown with faint greenish highlights, 2 lateral stripes visible on female. Five dorsocentrals, 1 humeral, 1 posthumeral, 1 notopleural with 1 or more long pale hairs, 1 intra-alar, 1 postalar, and 2 cruciate marginal scutellars with additional marginal hairs; pleuron and coxae dull grey tomentose, halter brown. *Legs*: Dark brown, femora lightly dusted greyish. Anterior femur with ventral spinelike setae irregularly spaced on apical ½, but uniformly shorter than tibia width; male with short, dark, erect setae on ventral surface of tibia. Tibia III with rows of dorsal and ventral, regularly arranged, hairlike setae, apical 1 or 2 slightly differentiated; basitarsis III with a few small, irregular setae. *Wing*: Fig. 3; pale brown, veins brown; stigma present, faint; anal vein present, evanescent; 2 basal costal bristles. *Abdomen*: brown tomentum dorsally, greenish grey laterally with a few sparse, pale hairs. Terminalia (Fig. 12) with dorsal process oval, polished, concave and strongly haired mesally.

Type-Material.—Holotype ♂, "Summit L. 12,800' [ca. 3900 m]/Mt. Evans, COLO./July 24 1961/W.R.M. Mason," "Holotype *Oreothalia chillcotti* Wilder 1980." Allotype, "Mt. Evans, COLO./Wet meadow 13,200' [ca. 4020 m]/4.VIII.1961/J. G. Chillcott," "Allotype *Oreothalia chillcotti* Wilder 1980." Both holotype and allotype are deposited in the Canadian National Collection of Insects.

Diagnosis.—Adults of this species can be distinguished from those of *pelops* and *spinitarsis* by the genitalia and the pale wings, and from those of *sierrensis* by the size, the pale halteres, the lack of the blue tomentum on the legs, and the short white hairs on femur III.

Specimens Examined.—Only one additional specimen (paratype) was examined: *Colorado*: Boulder Co.: ♀, Corona Pass, 10,600' [ca. 3230 m] (CNCI).

Remarks.—Although only three specimens were available for study, I feel this species is distinct enough to be described as new. The most closely related species, *sierrensis*, is different in several morphological characters and occurs only in and around the Sierra Nevada Mountains.

*Oreothalia chillcotti* is named for the late Dr. J. G. Chillcott who collected two of the three specimens examined.

#### ACKNOWLEDGMENTS

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#### LITERATURE CITED

- Melander, A. L. 1902. Monograph of the North American Empididae. Trans. Am. Entomol. Soc. 28: 195-367.
- . 1927. Diptera. Family Empididae. Fasc. 185, 434 pp., 8 pls. In Wytzman, P., ed., Genera Insectorum. Bruxelles.
- Vaillant, F. 1960. Quelques Empididae Atalantinae des monts des Appalaches (Diptera). Bull. Soc. Entomol. Fr. 65: 117-123.